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THE FARMER ON TOP.

BY ERASTUS WIMAN.

It is a safe assertion that no subject is quite so important to the world as the world's supply of food. Progress in civilization, in science, in art, even in religion, is all bound up in the problem of getting enough to eat. The life that is forms the essential element in the life that is to come, whether on this earth or elsewhere; and the ability to get enough to eat, of the best kind, and commensurate with a moderate effort, is a matter of greater interest, of more far-reaching importance, than any other that can occupy the mind.

In a period of such abundant plenty as in the last quarter of a century seems to have oppressed the world, it would look akin to folly to begin to talk about an impending scarcity of food-When the chief evil of the generation of producers now passing away has been that of overproduction, resulting in destruction of profit, it would indeed be a revolution of vast import if the coming generation of producers were able to grow only just enough to meet the demand, and be enormously enriched thereby. When by improved means of communication, owing to parallel strips of iron laid through the country, vast stretches of territory have been made readily available, together with the result of man's inventive faculty as applied to agricultural implements, the power to produce food has been enormously stimulated, to begin to talk about a possible limit to production seems a startling Especially is it a startling change when, change in conditions. in view of these widened areas, and this marked success in the employment of machinery to perform the work of human hands. resulting in a consequent perfection in agricultural pursuits, there should be slowly, but most certainly, creeping up a power to absorb and consume of even greater proportions. Yet it is a fact, as startling as it is true to those who watch closely the trend of

supply and demand in the article of food, that the power of absorption or consumption of food-products has at length caught up to the power of production; and that the possible ratio of increase in consumption is much greater than the immediate possible ratio of increase in the growth of food.

Perhaps more clearly than by anything else this is shown in three totals of the figures of the census now being completed; these being that, while the whole country has increased in population over 26 per cent., the cities have grown at a rate of increase of over 45 per cent., while the farming population has increased only 14 per cent. The growth of consumption of food-products, as shown by the growth of cities, is proportionately greater than has ever been shown in an equal period heretofore in the world's history. Though the increase in the number of farmers in ten years to the extent of 14 per cent. is greater than is shown elsewhere in the world during the decade, yet the disparity between 14 and 45 per cent. is so great that a moment's reflection will show its deep significance in relation to the production and consumption of food. The aggregations of humanity in the cities and towns are in no broad sense food-producers, but in the largest sense food-consumers and food-wasters.

But in the face of the great increase in the demand for produce, implied by the growth of cities and towns, there stalks into sight an apparition, in the shape of another condition, so unexpected and so startling as hardly to be credited. This is nothing more or less than a realization of two important facts: (1) the extent of the exhaustion of arable soils; (2) the hardly realizable circumstance that no more new wheat lands remain unoccupied in the United States. In other words, if a farmer's son or a new-comer seeks to secure land that will probably produce bread, to do so he must displace an occupant already in possession, or go without. That a "land-hunger" should at this early date in the history of the country exist, and be unappeased, would seem impossible on a continent whose land areas were supposed to be illimitable, and whose soil was supposed to be inexhaustible. That no lands are available is a conclusion so unexpected and so extraordinary that it is no wonder people doubt the truth of such a statement. Yet that a land-hunger of the keenest character does exist is proved in numerous sections, and perhaps more vividly than by anything else by the scenes which occurred at the opening of the territory of Oklahoma two years ago, and which have since been repeated with terrible earnestness on every occasion upon which government land-offices were open for allotment of homesteads. When, as in Ashland, Wisconsin, last winter, men and women stand in line, ankle deep in snow, all day and all night, from Thursday until Saturday, waiting for their turn to register; and when the Secretary of the Interior at a later date was compelled to close the land-office because it was in possession of a mob, who only became such because of their eager desire for the registration of their names, there is proof of a craze for land which nothing else in the previous history of this country has paralleled.

Perhaps the most striking sign of the exhaustion of soils, on the one hand, and the rapid occupancy of lands, on the other, is found in connection with the production of wheat, and its steady northern trend until now half the continent is fed by supplies from the northernmost States. The reader will confirm this by his or her own experience, in realizing the simple circumstance that the bread habitually served for meals in the household comes from Minnesota or Dakota, or from a region quite as far away. Why an article so essential to human life as wheaten flour, which should be furnished at a cost so free from unnecessary charges, and which is in universal use in quantities so vast, should be subjected to a charge for freightage averaging from 1,000 to 2,000 miles, is a problem that can only be answered by the statement that it cannot be produced with profit nearer. It was not always Many readers of these pages, especially those resident in the Eastern and Middle States, are old enough to recall the fact that nearly all the wheat consumed in their youthful days was grown in the Genesee valley of New York. Rochester was named the "Flour City" because of its great mills in the midst of a great wheat-yielding region. It is still called by a name that sounds similar, viz., the "Flower City," but this is because of the great nurseries and seed-gardens that so adorn it. It has been robbed of its glory as a food-centre by Minneapolis, 2,000 miles to the north, now the great flour-producing city, from which radiate supplies that keep alive fully one-half the population of this once great agricultural country.

When the regions that supply the mills of Minneapolis are exhausted, as the regions, so far as wheat is concerned, between the

Genesee valley and the valley of the Red River of the North have been exhausted, what new Northern State will step in to supply the need that will be so imperative as that of food? Abandoned farms in the half-dozen States of New England, the exhausted soils in the Middle States, the urgent need for expensive fertilization in numerous Western areas, are supplemented in suggestiveness by the discovery of the limitations of the rainbelt in western Kansas and Nebraska, and the universality of the movement near the Rocky Mountains for expensive irrigation in wide areas of soil too poor by nature to be cultivated except by artificial aids.

It is true that this wide survey of the conditions apparent on the surface of the country includes many a verdant valley, and many a hillside where wheat and other bread grains can and will be grown with profit; and that perhaps the inferences drawn of exhaustion and sterility for wheat may be extreme. But the fact remains that with the growth in the consumption of bread the immediate power to produce it in numerous wide localities does not keep pace; and that even in wheat-growing areas the increase is in meagre proportion to the increase in the number of mouths to be filled. The limitations in area are within sight; the power of production to the average acreage is known; but the growth of human life—the increase in the number to consume—is without limit. If it goes on by the same leaps and bounds in the next fifty years as in the last half-century, there are children now living who will see the population of this country from one hundred and fifty to two hundred millions of people, which vast aggregation will derive its bread from an area that even now has reached the northern boundary and is beginning to realize for its food out-put prices far in excess of what a brief period ago were deemed possible.

But it is unnecessary to wait fifty years, or anything like it, to realize the consequences of an exhaustion of the raw material from which profitable farms are made. The rapidity with which farms were taken up and the spare land occupied between 1870 and 1880 has been the cause of the depression which so universally prevailed among the farmer class. Excessive competition was its curse, and overproduction the cause of the low prices and the destruction of its profit. This is shown by the fact that for the fourteen years ending with 1885 the cultivated area of the United

States increased 112 per cent., while the population increased but 44 per cent. But the very rapidity of occupancy is now producing its reactionary effect, not because there is a lessened demand for land or a restricted number of cultivators, nor even because of low prices, but because there is so little unoccupied land available which it is profitable to cultivate. While the population continues to increase at the rate of 12½ per cent. in every five years, the area now being taken up has not in that period increased 7 per cent., and it is yearly and progressively lessening. In this connection the fact is a most significant one that the quantity of land in cultivation, the production of which is necessarily marketed abroad, has declined from twenty-one millions of acres in 1885 thirteen millions in 1890.

Confirmatory of this statement of the general conditions of production and occupancy of land is a striking compilation by Mr. C. Wood Davis, of Goddard, Kansas, who, as a farmer himself, obtained a perfect knowledge of the practical difficulties that surround his class, and who, as a painstaking student of statistics, has furnished to his fellow-farmers, and to the people at large, conclusions that have placed the whole country under an obligation to him. From numerous calculations of great value, forming the basis of much of the discussion now going forward on this most important topic of the food supply and the farmer's position, the following is selected as illustrative of the progressively decreasing rate at which additions are made to the cultivable area, which, being certain to continue while the population increases at a greater ratio, will result in placing the farmer on top:

Year.	Cultivated area in staple crops.	Increase of cultivated area in each period and rate per cent. of increase.		Increase of cultivated area each year during each period and yearly per cent. of increase.	
	Acres.	Acres.	Rate per cent.	Acres.	Rate per cent.
1871. 1875. 1880. 1885. 1890.	93,000,000 123,000,000 165,000,000 197,000,000 211,000,000	30,000,000 *42,000,000 32,000,000 *14,000,000	*32.2 34.1 19.4 *7.1	7,500,000 8,240,000 6,400,000 2,800,000	8.1 6.8 3.9 1.4

^{*} Note rapid diminution in aggregates of such increase and in the rate per cent.

The inference to be drawn from this steady decline in increase of percentage of area of cultivation is that prices must advance if VOL. CLIII.—No. 416.

there is a corresponding increase in consumption, as there is certain to be. It is true that a foreign demand regulates prices, and that the out-put of foreign nations may make up for the decrease in the surplus from America. But this argument is met with the inquiry. If the bread-producing areas in the new world are lessening in proportion to consumption, what may not be inferred from conditions that prevail in crowded Europe, where land is scarce and population increasingly large? The apparent facts do not justify the conclusion that hereafter foreign sources of supply will largely influence either out-put or prices. Indeed, the action of almost all the European countries indicates a great anxiety in regard to this question of food-products, in the face of increase of population and extreme narrowness of cultivable area, as shown in the removal of restrictions and reductions of duty, which almost every week recently have been reported.

The figures regarding the increased wheat area the world over are ascertained, and not only show how large a percentage is contained within the United States, but how marked is the decrease in proportion to population. Thus, in the decade from 1870 to 1880 the wheat areas of the world increased twenty-two millions of acres, of which the United States contributed nineteen millions. In the decade from 1880 to 1890 the wheat areas of the world increased only five millions of acres, to which the United States contributed not an acre. Meanwhile the population of the bread-eating world increased 11 per cent., and goes on increasing irrespective of the fact that the land which can grow grain at previous prices is well-nigh exhausted, so far as relative increase Take, for instance, the population of India. It is said to be increasing three times as fast as its cultivable area, and although its exports rose in seventeen years from 500,000 bushels to 41,000,000 bushels in 1887, the increase, it is believed, has reached its limit. Because of the increase of population and the restricted area of cultivation, the inhabitants cannot afford to cultivate wheat, much less live upon it, as is shown by the fact that the area under wheat cultivation at the end of 1889 was a million acres less than ten years ago. The whole situation seems summed up in The American Agriculturist for May in these brief words:

"It is quite safe to say that the yearly additions to the bread-eating populations of European blood are such as to require an addition yearly to the wheat and rye supply of the world of from 30,000,000 to 32,000,000 bushels, or the product of 2,500,000 to 2,700,000 acres. Yet the entire wheat- and rye-growing world has, of recent years, been adding not to exceed 400,000 acres per annum, or less than one-sixth of the increased requirements. Moreover, there is no country where the present rate of increase is likely to be much accelerated at an early day,"

Bearing with great force upon this question of food-supply is the fact that this is the census year in most of the world. results of an enumeration so world-wide enable accurate estimates to be formed of the growth in consumption of food; and as the areas and productiveness of food-lands are ascertained with more or less definiteness the inferences to be drawn all point in the direction of an increasing tax upon the producing power of the world. instance, the United Kingdom is cultivated to an extent beyond which it would be difficult to improve; yet its population, by the census just completed (on the night of April 5), shows 39,700,000, or an increase of 3,000,000 in five years. Austria-Hungary completed the census last month, showing an increase of 2,250,000. Germany in five years has grown 2,265,000, now reaching 49,120,-000, as against 41,058,000 ten years ago. France, the country with the smallest percentage of growth, has a million more mouths to feed than in 1885, while Russia is known to have increased 10,000,000 in the first five years of the decade, and certainly as much in the last five years, thus adding 20,000,000 to the newcomers into the world. Italy, notwithstanding heavy emigration, will, it is estimated, add 1,000,000 to its population, while India is believed to have grown in ten years from 255,000,000 to 285,-000,000. Grouping the increase in all these eight countries together, it shows in the old world the addition of over 76,000,000 of lives to be sustained by food got from the ground, without anything like corresponding increase in either cultivable area or in its productiveness.

In startling connection with the foregoing figures of new population, it is appropriate to draw again upon the calculations of Mr. C. Wood Davis, who from the eyry of his farm in Kansas, after careful observation, startles the world with the following conclusions:

"From the best data obtainable it would appear that with an average yield the world's crop of wheat and rye is now 70,000,000 bushels less than the yearly consumption. Each passing year, by reason of the increase in population, adds at least 25,000,000 bushels to this yearly deficit, so that by 1895 it can hardly be less than 200,000,000, if the per-capita requirements re-

main as large as they have been. Up to this time the reserves accumulated during the existence of the surplus acreage added in the eighth decade have sufficed to meet this deficit, but there are indications in every grain-growing country that these reserves are everywhere nearly or quite exhausted. The injury already sustained by the growing European crop renders it absolutely certain that the coming cereal year will dispose of the last vestige of these reserves."

Sufficient has been adduced to make it plain that the possibility of prices remaining at a low ebb is past. Is is clear, therefore, that the farmer hereafter will realize a fair profit upon his operations. It is time that he should do so. Of all classes his rewards have been the smallest, while they should have been the most satisfactory.

The extent of the farmer's loss by low prices and the extent of his gain by high prices may be judged by the advance in the amount to be realized in these different conditions. 1875 the average price in gold of English-grown wheat in the markets of Great Britain was \$1.64 per bushel. During the five years ending with 1889 it was 95 cents per bushel. In other words, there was a difference of 69 cents, equal to a decline of 42 per cent. in the income of every wheat-producer, and, as a matter of fact, of every producer of food, arising out of compulsory exports from India and the creation of too many American farms. With a restoration of the former high price, the gain to the producer will equal the amount of which he has hitherto deprived. Now, an increase of 42 per cent. the income of any individual, or any class of individuals, is a most momentous matter. But when it affects a class so large as that which follows agricultural pursuits, and when, in addition to that special class, it equally and directly affects the vast number in town and village who are related to and dependent upon the farmer, the consequences of an increase of revenue to such a great percentage can hardly be overestimated.

It is true that the difference in the price of wheat in Great Britain in 1875, when it was \$1.64, and for the five years ending with 1889, when it averaged only 90 cents, may not be immediately made up, but all the signs are in favor of dollar wheat at the farm, and, if anything, above that sum. It is also true that wheat does not comprise by any means the total out-put of the farmer, but the price of wheat is the key to the agricultural situ-

ation, for out of 13,500,000 acres now used for the production of food for exportation, between 8,000,000 and 9,000,000 are devoted to wheat-growing. It is the one great staple that all the nations of western and southern Europe export largely, and is the one grain for which a market, at some price, can always be found, while it bears transportation and storage with less deterioration than any other food-product. As wheat rises or falls, all other food-products increase or decline, and if a gain of 40 per cent. in the rise of wheat is promised to the farmer, it may be relied upon that this relative gain is likely to pervade all his crops.

An increase equal to 40 per cent, in the paying power of the farmer of North America will make at this time a greater economic revolution than has ever yet been witnessed. The first thing that will happen will be that the farmer will get out of debt. sorrowful years of burden which in the last decade he has suffered from heavy obligations of mortgage, interest, and store-indebtedness will cause him to hasten the day when he can be a free man. As a borrower, he will no longer fill the position of servant to the lender. Having once hypothecated their future in the expectation of continued prosperity and high prices in the past, as a class the farmers have had an experience that most men would The pursuit of happiness, which is a have sunk under. guarantee under the constitution, and which in this fair land more than in all others would seem easy of accomplishment, has been like chasing an ignis fatuus in a huge fogbank of indebtedness. The weary waiting for better times, the nights of sleepless anxiety, and the days of unrequited labor, the narrowness of resources, and the eager desire of the young people for better modes of living, have all been borne in expectation of the day that now dawns upon every industrious farmer in the land. It was no wonder that unrest prevailed, and that a striking-out for relief in legislation, or some other form of remedy by organization, was tried. But the futility of those movements is even now becoming apparent to them, and will sink out of sight in the certainty of improvement in conditions which is sure to follow the gain in purchasing and paying power of 40, or even 25, per cent. It seems impossible to doubt from all that has been here adduced that such a change is coming.

This change will put the American farmer on top. It will make him, of all classes in the world, the most prosperous. He

will be the most independent and the most intelligent and prosperous producer of his period, and by organization and a reasonable control of politics, which he is likely to maintain, he will probably dictate the fiscal policy of the nation. Having attained prosperity by the operation of natural laws, he will abandon the absurd theories under which, in the days of his depression, some of his representatives sought relief by laws made by legislation; and it will not be surprising if he reaches the conclusion that the least interference with trade, the least taxation, and the least legislation will be the popular movement, setting in as a reactionary sentiment from that which has hitherto prevailed.

With an ability to buy twice or thrice the quantity of goods hitherto absorbed, with a desire to possess himself of every comfort, and to deny his children nothing that they need and can enjoy, the absorption of manufactured goods will be enormously increased. The excess in production of articles of necessity and luxury, now apparent on every hand, will be absorbed. process, aided by an increased foreign trade, which is promised under reciprocity, would seem to open up a prospect for still another great group of population, namely, those engaged in manufacturing pursuits. These have already begun to feel the pressure of overproduction, as evidenced in numerous labor troubles all over the country. But with the improved condition of the farmer, a larger demand will exist for all classes of goods. Every farmer's wife will be able to afford a silk dress; every farmer's daughter will have an elaborate tronsseau. From ploughs to pianos, from buggies to books, the range will include all articles for farm life, for which a new demand will be stimulated by a new ability to buy and to pay. There will, doubtless, therefore, be felt throughout the country a new thrill of industrial activity, as the necessary reflection of the enhanced prosperity of the greatest and the most worthy group of growers that the world has ever seen.

ERASTUS WIMAN.